THE PRESENT SITUATION OF PARAPSYCHOLOGY IN THE WORLD

(How to distinguish the psychic man from the ordinary and the insane psycho-physiologically)

by

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THE PRESENT SITUATION OF PARAPSYCHOLOGY IN THE WORLD

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1. Psychical Research

My today's lecture is concerned with historical background in which psychical research arose and developed, and with the question what kinds of research are included in it. Today the psychical research has developed to the research of parapsychology in scientific meaning, but parapsychology is in fact treating a quite few of the problems which are treated in psychical research. So, I' ll also touch the question from scientific point of view why parapsychology derived from psychical research. After that, I' ll talk about the present state of psychical research or parapsychological research being conducted in universities or institutes all over the world. Lastly, I will show you film slide of our research, which will be well understandable to even those who are not so familiar with psychical research or parapsychological research (My talk may be like a lecture to be given at a university at first but it will become easy to understand as it goes on).

Historical background for the rise of psychical research

Now let us think over the motive or the historical background for the rise of psychical reseach or societies for psychical research to understand what meaning psychical research has today.

Extending from the eighteenth century to the nineteenth century, materialistic scientific thought flourished; Darwin's theory of evolution

for example tried to view the problem of life from scientific or one materialistic standpoint and grasp the mechanism of life. Extending from the beginning to the end of the nineteenth century, Marx replaced the problems of God or the problems of mind as being considered in religion with the material, and he concluded that the world changed according to the dialectical movements of matter and that mind was the product of such movement or might be a shadow of matter.

According to such a materialistic point of view or an attitude toward matter, a revelation of God or something else like that to be regarded as important in Christianity is disregarded and generally a great trust is placed in man' s reason. What can be objetively grasped through man' s reason or understanding are made the object of research and it is studied under the law of causal relation how those work and what mechanism those have. Everything is objectified here and is studied as what exists outside of man from the standpoint of reason. On the other hand, Christianity takes up the position, instead of trusting to man' s reason, that religion is to be based on a revelation of God and that only through a revelation of God the ultimate meaning of life and the ultimate meaning of the world can be comprehended. This is the reason why there has been a long struggle to this day in Europe between religion and science.

Psychical research rose when people tried to make clear under the above mentioned mental situation of the times, through scientific means, that man is in nature the more or the higher than that which is grasped under mere materialistic or scientific view. In psychical research, the so - called psychical phenomena like telepathy and clairvoyance are taken up as the object and scientific study is made on it. Psychical research was started one after another in England, France, Germany, America, and so on. In 1882, society for phychical research was established in England by Mr. Myers, Dr. Sidywick who is a professor at Cambridge University, and others. Two years later, a society for psychical research was set up in America. Psychical research was thus begun one after another in various countries

of the world.

The aim of psychical research originally was to make clear through scientific observation and investigation every phenomena unexplainable by scientific laws which were found out so far, but in fact psychical research or spiritualism is said to have much religious colour and to lack a thorough devotion to science while claiming to stand for scientism because it acknowledges the immortality of the soul and the existence of a spirit which still remain unexplainable by natural science and regards the spirit as the fundamental of the psychic phenomena which are unexplainable by natural and scientific various laws.

The kinds of psychical research

The contents of the researches being conducted by the societies for psychical research in various countries may be classified into groups as follows, according to the kind and the nature.

1. The research concerning cognition.

Cognition includes telepathy and clairvoyance ; the former is super-sensory cognition between mind and mind, that is, reading a person's mind, and the latter is super - sensorily cognition between mind and matter, seeing the matter of an external world without going through senses but super - sensorily.

Besides these, prediction or prophecy of the future, psychometri, and super - sensory recognition of the past events are included in this item too. Psychometri is an ability to know super - sensorily the past events and the future events using one (natural) matter as an implement of spiritual judging ; for example a man of psi ability takes a watch of a person in his hand, touches it, and super - sensorily guesses when and where the owner of the watch was born and what he did.

2. The research concerning the movement or the change of matter.

This concerns physical phenomena like the movement of physical

object or the change of the object.

The followings are included in this item.

(a) Transference of matter. For example, a flowering plant which springs up only in Germany was transferred by a spirit to a place in London where spiritualistic congregation was being held, in front of the people who were participated in it.

(b) Movement of matter (A megaphone which was placed on the desk moves or floats in the air or the desk moves with a rattling noise.)

(c) Materializational phenomenon which is supposed to be caused by ectoplasm.

(d) Spirit photography as being made in the Fukurai Institute.

(e) Psychic treatment, which cures diseases with psychic power, that is to say, a psychic power causes a change in the body of a patient.

3. The research concerning reincarnation

An investigation of a rebirth of a person is being carried out in Turkey, India and so forth. Dr. Banerjee at Rajasthan University (India), a friend of mine, has investigated lately very interesting cases of reincarnation in Turkey, in cooperation with Dr. Stevenson at Virginia University in America.

4. Others

Psychical research at first contained hypnotic phenomena in it. But an academic hypnotism of today is trying hard to branch off from the research of the mystical and psychical phenomena and to start as a pure science, and it is gradually joining the ranks of orthodox studies. On the part of psychical research, however, hypnosis is still employed; for example in America hypnosis is employed to know one's previous life as follows; a man is hypnotized to a deep degree and he returns to the age of 40, 30, 20, ... 0 according to experimenter's suggestion and further to the state of his previous life.

Societies for psychical research and Institutes of parapsychology in various countries, and the contents of their researches

I already stated the kinds and the categories of psychical phenomena and psychical research. Now I'll state briefly about the societies of some countries with which we are exchanging views and about their research activities. In England, a doctor named West, the president of the society for psychical research of England, is making various researches in this field, with whom I met four or five years ago when an international parapsychological convention was held in Oxford and had very interesting talk. He appears to take the position opposed to the usual quantitative way of research of parapsychology as being made by Dr. Rhine but to attach much importance to the method of psychical research followed in England from the beginning.

The society for psychical research in America is of the largest scale in the world and includes considerably parapsychological research of an American style besides the psychical research of an English way. In Germany, there is an institute where Prof. Bender at Freiburg University acts the head, and parapsychological research rather than psychical research is being made there. In France too, there is a society for psychical research. In Russia, a research institute of parapsychology was recently established in Leningrad and also in Moscow. In Czechoslovak today, the government is giving a financial support to a university or to some scientists to make a parapsychological research. I was sometimes asked to contribute a paper to their publication. In Switzerland, there seem to have been numerous institutes or small societies for psychical research from old times. In Italy, there is a society for parapsychological research in Firenze. And in Turkey, there is a society for psychical research in Istanbul. An Isttanbul University professor is the head of this society, and I received various reports from it. There are very illustrative cases of reincarnation in Turkey, so I will give explanation to it through showing slide - film. The one on the right side in the Fig. 1 is the president of the society (Fig. 1). The one wearing spectacles and taking notes is Prof. Banerjee from India. And the boy standing in the middle is Ismail who is alleged to be the reincarnated. According to Ismail's

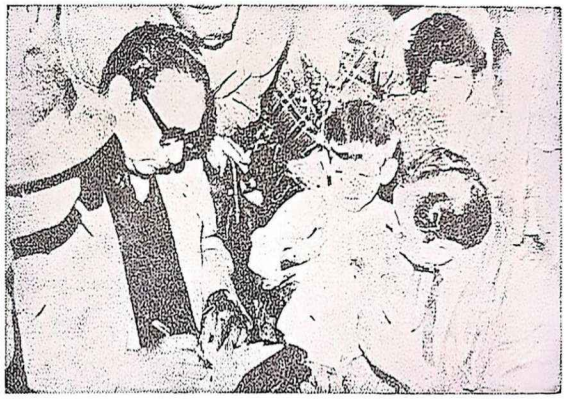


Fig. 1

account, in his previous life he had a farm at a place about 10km away from the present place where he was born and was living there a happy life together with two wives and his children but one day he was killed by his male servant, and now in this world he was reborn as a son of his present parents. It is said that he was about three years old when he first talked about his former life. When he became about three years old, he talked that he was so and so of such and such a place in his previous life; he was killed by his servant with a hatchet or something else like that and was buried under the ground in front of the door of the stable, so his body would be discovered if they digged the ground. He had three daughters, and the youngest one was of the name of so and so and of such and such a character. As a matter of course, the child Ismail had never been taken to such a place about 10km away from his home. He went on talking that his first wife was of the name of so and so, that he divorced her because she was a barren woman, and that she was living in the house alloted for her use by him in one corner of the farm. Ismail asked his parents to let him return to the place so persistently that his parents decided to take him there once though they felt so queer at first. When they reached the place, Ismail walked briskly into the house saying that this was his first wife's house, and called her name. An old woman called by name, who

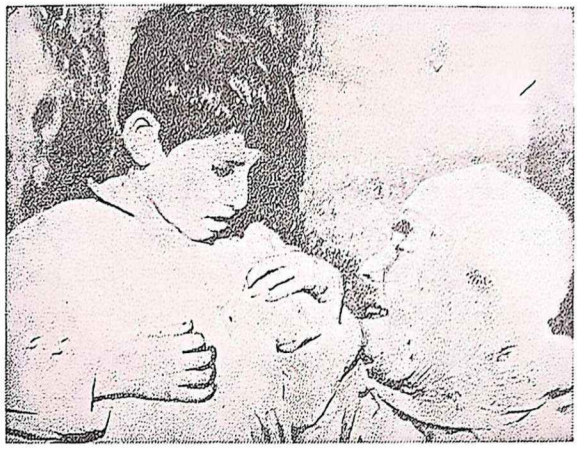


Fig. 2

was alleged to be Ismail's first wife in his previous life, was quite surprised at first but came to believe that the boy must have been her husband in his previous life because he guessed so rightly their names and the place a thing was. So they interviewed with each other with tears in their eyes (Fig. 2). The figure - 2 is the picture taken by Prof. Banerjee when he went to Turkey for investigating this case, hearing the widely spreading rumor on Ismail.

Dr. Stevenson, chief professor of psychiatry at the University of Virginia in America, travelled in Alaska, Turkey, India and some other countries for investigating the cases of reincarnation and collected the materials of about twenty cases of reincarnation. On the basis of them, he wrote a book scientifically reliable, in which he is trying hard to prove that a man reincarnates, stating in detail what the reincarnated person said himself, what another persons said to prove it, and what Dr. Stevenson discovered himself through his investigation and making a comparative study of them. Dr. Stevenson is the one who has been closely studying the cases of reincarnation, having travelled in various countries for these ten years or so. In my personal opinion, Dr. Stevenson is so reliable person that what he says cannot be false. However, the soul can not be grasped scientifically ; for

example, you can recognize me when I am talking, but it is not because you can grasp directly or can see my spirit or soul but because you can see my body and recognize my personality or my spirit through grasping the meaning of the word uttered by me and understanding what I am thinking in my mind. When one person is said for example to have been reincarnated, therefore, it is impossible to scientifically prove his soul itself to be the reincarnated, though the evidence to prove the other things than the soul can be presented. Here is the limitations of treating the cases of reincarnation scientifically. For this reason, it is impossible for science to give a final decision as to the question whom the soul was reincarnated to.

Now we turn on the next subject. In Egypt too there is a society for psychical research. In the University of Cairo there are many who are making psychical research. In India there are many societies for psychical research or for parapsychological research. And there are many Yogis who have acquired through religious austerities the faculty of causing a change freely as they wish in their own body or in the body of another person. The figure - 3 is the cardiogram of one Yogi who is able to stop his heart at his will (Fig. 3). This

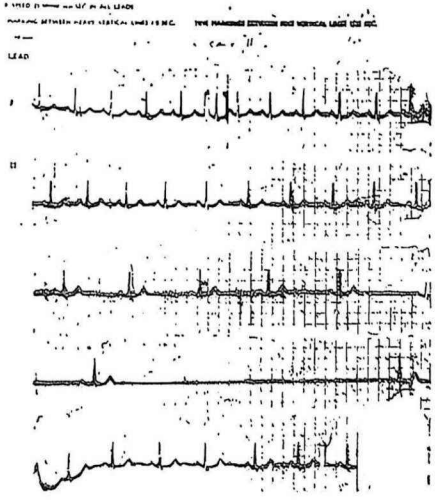


Fig. 3

was sent to me by one professor in the medical department at the University of Rajasthan, with whom I got acquainted when I visited India having been invited to Rajasthan University several years ago and whom I had asked at that time to send me later a copy of an electrocardiogram of a Yogi who is able to stop his heart. As this picture shows, the pulse is becoming slower gradually as it goes on. We may regard an interval between one spike and another spike as one pulse. Each graph was taken for six seconds at the most about five minutes apart. Seeing the fourth graph, the heart has been stopping after the ventricle showed the second impulse ... here, the ventricle showed the first impulse. Four intervals of the scale on the paper are equivalent to one second. Therefore it was about for five seconds that his heart had been stopping. Viewed medically, this is very important data. Probably, this is the only data in Japan which shows so clearly the heart stopping.

In India there are many who do wonders as stopping the heart as above mentioned, floating one's body in the air and so on. A saint named Saibaba for example is said to be able to take out everything he wants from the air at his will. When I shall be in India next time, I will closely investigate him.

In the Philippines, there is a society for psychical research sponsored by Dr. Tolentino, professor at the University of Manila, which has some members who are able to perform psychic operation.

In Japan too, Japanese society for psychical research, the Kikuka group, the Fukurai Institute are making psychical research eagerly.

Now I turn on the subject how parapsychology rose with which we Japanese are becoming fairly familiar and why it did not remain as a part of psychical research but branched off from psychical reseach as another science. I shall be happy if I can hear your own opinion with this subject later.

11. Parapsychology

Appearance of parapsychology

In about 1930, parapsychology was established as a science at Duke University in America, on the basis of psychical research. Dr. Rhine was intending to prove at first the immortality of the soul by all means when he came to Duke University from Harvard University. But his intention has not yet been accomplished. I think that the reason of this is to be sought in the difference between psychical research and parapsychological research. Psychical research treats the cases or phenomena which rose spontaneously. A spontaneous exprience as feeling dizzy suddenly or having some gloomy foreboding at just the same time when one's father died for example is regarded as telepathic phenomena in psychical research. However, scientific research of such cases is in fact very difficult. With regard to the case above mentioned, for example, there is no data but personal statements to prove that the time when he felt dizzy really corresponds to the time when his father died and to show in what respect his having felt dizzy is connected with his father's death. One's personal statement generally contains much subjective element. Scientific objective investigation is very difficult in case there is few objective data besides personal statement.

Judgement and appraisal are difficult in the case study.

To begin with, there are instances where the thing which a man of psi ability alleges to have seen by inspiration does not accord with what exists actually. In many cases, a knowledge obtained by

inspiration is very partial. Besides, the contents of what one knows by telepathy is in general of fluidity; when a man of psi ability knows something by telepathy or other, for example, he may make a wrong guess as to it in the first place, though he may come to catch the object more exactly as he goes on. And when an exact report is presented about the object, he is liable to connect the contents of what he knew by telepathy with it, even if it accords with the contents only in a few respects. With regard to these cases, it is difficult to judge objectively in what degree the contents of telepathy are accorded with the real object.

As for precognition, it is possible that some make a false statement by intention. For example, there was one person, a founder of one religious sect, who had been said to be able to foretell the future exactly and be able to know everything beforehand. But in fact he read a newspaper as soon as it was delivered every morning and wrote in his notebook of prediction the contents of big news which appeared in the newspaper and added to it a date of several years ago, pretending to have predicted it himself in advance. When someone came in the morning, he showed his notebook to the guest and, after that, let him read the newspaper of that day, saying that his prediction came true. This was eventually seen through by the one who had been in his house to spy on his movements with the intention of disclosing his falsehood. In any case, it is very difficult to see through or exclude such a fraud.

To cite another interesting example, there is a case where a man of psi ability sometimes misconceives a person A as a person B even when he sees the person A's spirit very clearly. A case contrary to this is also possible. Therefore, what one has seen by telepathy supersensorily and his judgement about it do not always accord with each other.

Regarding another case for example in which a man of psi ability super-sensorily sees a picture of a monkey very clearly but could not draw well and faithfully the picture of a monkey as he saw and

drew a picture as undistinguishable from the picture of a bird or a dog, it is difficult too to judge how far the picture which he drew on paper accords with the objective picture of a monkey which he super - sensorily saw, though in his mind the picture may be accurately drawn or recalled as seen super - sensorily.

It will be satisfactory for me in any case if you can understand from what was mentioned above how it is difficult to judge how far the contents of telepathy, clairvoyance, or precogition accord with the real object and how far things which a man of psi ability has seen super - sensorily and his judgement or description about them accord with each other or in what relation the both stand.

Case study is not repeatable

When we make case studies, it is impossible to observe the cases repeatedly because those are phenomena of only once. In science, a case which does not rise again cannot be made an object of study. It is very difficult therefore to study scientifically psychic phenomena which rose spontaneously because the object of the study is the transitory and the unrepeatable. This may be the main reason why it was so difficult to establish experimental scientific method of definite form in usual psychical research based on case studies.

Establishment of parapsychological experimental method

Many people tried to devise an experimental method by which one's psi ability can be tested repeatedly under the same condition without difficulty and the result can be quantitatively calculated, that is, one's psi ability can be decided to be three or four so that one's psi ability can be compared with another person's and the data can be dealt with easily. For example, a famous scientist named Richet in France, Dr. Fukurai in Japan, and some scientists in England attempted various experimental methods by which a test of psi ability can be made repeatedly at any time. This was the situation of psychical research in the times from the end of the previous century to the beginning

of this century, to about W. James' time. Later, Dr. Rhine at Duke University in America, Dr. Thouless who is a professor of psychology at the University of Cambridge and who is famous as a psychologist authoritative on the research of consciousness and who has many followers also in Japan, Prof. Bender at the University of Freiburg and so on devised various methods, making improvement in them, and finally Dr. Rhine established a method of parapsychological test of a form as being used today in America. Scientific experiment thus came to be conducted in psychical research in the name of parapsychology.

Difference between psychical research and parapsychological research

Briefly stated, there is such difference between usual psychical research and parapsychological reseach as follows; first, psychical research depends on a medium, a type of man who cannot be found every day and yet who would not comply with a request of an experimenter willingly, as a subject, so there is difficulty in carrying out an experiment. Parapsychology, on the other hand, can make anyone a subject. Second, spontaneously risen cases which are treated in psychical research are not repeatable, so it is difficult to treat them scientifically. But in parapsychological test an experiment is able to be repeated at any time under the same condition. This may be one of the most useful characteristics of parapsycology. Third, it is quite difficult in usual psychical research to show quantitatively what were grasped super-sensorily. Through parapsychological test, however, what were grasped super-sensorily can be treated quantitatively and comparison can be made between one person and another (with regard to their psi ability). Parapsychology appears here to have become eventually something as recognizable as science. Fourth, showing what were grasped super-sensorily by quantity is difficult in psychical research, so the appraisal (of the result) is difficult too.

In parapsychology, however, those which were grasped super - sensorily can be shown easily by quantity, so the appraisal of the results is not difficult. Fifth, in case studies, there is a possibility of fraud because some persons of psi ability may practice a fraud intentionally and because it is difficult to see through it, as already stated under the item in which I explained that judging or estimating is difficult in case - studies. There is no way, after all, other than to rely upon the character of those who have psi ability or who have psychic experience. In parapsychological experiment, on the other hand, there is no possibility of trick because a sure method is adopted from the beginning to prevent any trick.

It will be inferred from what I have said that parapsychology has many points of advantage, viewed from the standpoint of scientific research. But it must be kept in mind that parapsychlogy appeared on the basis of psychical research which had been investigating for long psychic phenomena which rose spontaneously and that parapsychology is not yet of a wide range but makes only very few of the fields of psychical research as object of study.

Parapsychological Research in America

Now I discuss briefly the domain of parapsychological research in America and the results obtained so far.

The domain of parapsychological research

In the domain of parapsychological research in America, only few of the subjects being treated in psychical research are taken up. Because parapsychlogy makes it the object of study which can be treated scientifically as being able to be exprimented with a method which has no possibility of trick and can be repeated at any time by anyone under the same condition and by which the result can be treated quantitatively.

(1) The research concerning cognition

Clairvoyance may be cited first of all as an example. In psychical research in the past, most importance has been attached to telepathy, as it is in the parapsychological research in Russia of today, but it is hard in fact to make a scientific experiment on telepathy and to form an exact judgement on it. I will fully discuss telepathy on another occasion. If you like to know about this problem in more detail, please refer to the appropriate place in the book "Parapsychology" written jointly by Dr. J. B. Rhine and Dr. J. G. Pratt. In the experiment on clairvoyance in which it is tested if one is able to see through the thing which was placed in the next room, it is not difficult to preclude the possibility of trick. So, Dr.Rhine and Dr. Pratt both seem to have pursued their studies, attaching great importance to clairvoyance at the beginning. Besides the above, GESP which is an ability blended of clairvoyance and telepathy, and precognition are also included in this item. The four of clairvoyance, telepathy, GESP and precognition are the objects of the research concerning cognition.

Now I explain how to make the test. The marks as ○ □ ≋ etc. in the figure - 4 are the right side of ESP cards and the upper card on the right shows the back side of the cards, which is the same regarding all the cards. In the ESP test, ESP cards are used and a pack of ESP cards has five marks and consists of 25 cards with 5 cards

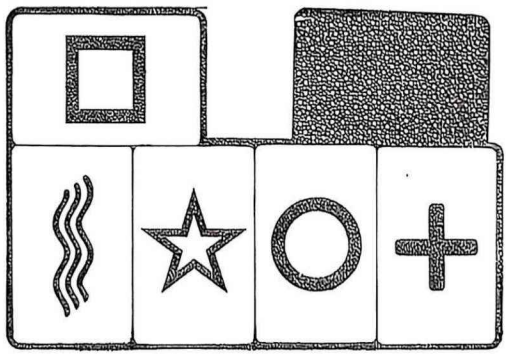


Fig. 4

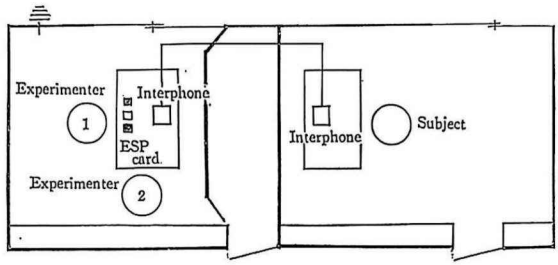


Fig. 5 The floors, walls ceilings, doors, and windows of the rooms are shielded from physical and electric energy.

for each mark. If one answers "circle" at every time, even if at random, he gets five points because five of the 25 cards are of the mark of circle. Even if one gains five points, therefore, his ability of the ESP is judged to be zero. The cards are placed face downward on a table lest the mark should be seen. The room is partitioned by a heavy wall (Fig. 5). A subject sits in front of the desk on which a secondary interphone connecting with the master interphone in the experimenter's room is placed. The experimenter-2 shuffles a pack of ESP cards face down and hands it to the experimenter-1. The experimenter-1 places the pack of 25 cards face downward on the left side of a table. This is the way which draws no distinction between clairvoyance and telepathy. The experimenter-1 turns up a card of the top and places it at the center of the table, and then pushes the button of an interphone to instruct the subject to answer what the mark is. Then the subject guesses the mark. If he supposes the mark to be circle, he answers "circle". The experimenter-1 writes the subject's answer in the test paper placed on the right side of the experimenter's table. The experimenter-2 watches it so that he may give the experimenter-1 a warning in case the experimenter-1 makes a mistake in writing the mark answered by the subject. When the experimenter-1 finished writing the answers in the test paper, he places the card face downward on the right side of the table. Then he takes up the next card and places it face up

at the center. He repeats this for each of 25 cards. When the test was finished, the experimenter-1 takes the pack of cards placed one by face downward on the right side and turns it up. Then, he writes the correct marks in the column in the test paper in the order in which the cards were placed, and counts the score, checking up the subject's answers with the cards (namely the correct answers). The experimenter-2 is watching it all the while from the beginning to the end lest the experimenter-1 should make a mistake in writing or checking the answers.

There is another method of this test. The experimenter-2 puts a pack of ESP cards into a case after shuffling them face down and closes the case. Then he hands it to the experimenter-1. The exprimenter-1 places it on a table and gives an instruction to the subject to start. Then, the subject guesses the mark one by one from the top to the bottom one. The experimenter-1 writes his answers in the test paper. When the subject finished answering for 25 cards, the experimenter opens the case, writes the right answers in the test paper, and counts the rightly guessed marks after checking the subject's answers with the cards. The experimenter-2 is watching it for all the time. This is a test of clairvoyance. Under this test, none of the experimenter-1 and the experimenter-2, not to speak of the subject, know the order of the cards at all. Besides, both rooms are perfectly separated from each other by a heavy wall so that the experimenters and the subject cannot see each other. This way of making a test is of "one way" because only a subject answers through an interphone after an instruction was given to him from an experimenter to start. This is a way better than other ways in respect that there can be no possibility of trick.

To explain the test of precognition, an experimenter lets the subject say the marks one after another, without placing the card on the table, and writes his answers in the test paper. After this, the experimenter-2 shuffles the card and writes the right marks in the paper. In the test of precognition, therefore, the subject guesses the

future order of a pack of cards (into which it'll be shuffled), not the order of cards already shuffled. Those who have psi ability gain almost the same points throughout both precognition test and clairvoyance test, but those who have no psi ability gain no more than five points or so.

(2) The research concerning movement of matter

The research of PK belongs to this. It corresponds to the research concerning movement of matter or change of it in psychical research. PK is short for psychokinesis and is called "Nenriki" in Japanese, which is a kind of mental power that exercises a direct influence on movement of matter. It is said that a master hand at dice one day came to the institute, of which director was Dr. Rhine, and said that he could turn up any face of a die at his will, and it is said also that the face "three" really appeared when he cast a die, saying that he would turn up the face "three". Getting a hint from it, they worked out a way to make an experiment of PK using a die. The probability of one face's appearing is one-sixth, since a die has six faces. In this test of PK, the subject casts a die several times ardently wishing to turn up the face "three" for example. Then, the experimenter counts the number of times when the face "three" appeared and makes a calculation of probability to make clear if the points belongs to the ones obtained by chance or if he has PK ability or not. There is another way of PK test; a machine is used for example in the University of Duke, which is so devised that something like a pinball comes down from the upside when one pushes the button on the machine, strikes against a sharp metal fitting between the A side and the B side of the machine, and falls to either of the two side. But if one pushes the button on this machine, wishing that the ball will fall to the A side, for example, it tends to fall to one fixed side because of some deflection of a machine. In order to remove such declination due to distortion of a machine, the test is conducted in a way in which the subject pushes the button, wishing

the pinball to fall to the A side one hundred times and also to the B side one hundred times. Then the number of times when the pinball fell to the wished side is added regarding the A side and the B side. Thus the declination due to distortion of a machine has been removed. Next, we put the total of the numbers of times when the pinball fell to the wished A side and to the wished B side, probability 1/2 and the number of trials into a mathematical formula, and calculate a probability to judge if PK worked or not.

Various means are devised also in PK tests as in ESP test of clairvoyance in order to prevent trick or deception. The test will be unavailing if the subject shakes the cup in which a die was put very slowly so that the spots on the die are recognizable or if he gets the knack of handling it so as to turn up any face he likes of the die. In order to avoid such a trick or deception, a machine has been invented which is so devised that there is a box of wire-netting in which about ten dice are put and the dice fall when the box is turned by a (electric) motor. For example, the subject wishes the face "two" to appear when the dice are going to fall in the box of wire-netting. The dice drop so fast that the points on the dice are unrecognizable. When the dice in the box all have fallen to the bottom, the motor is stopped, and it is counted how many faces of "two" have appeared.

The above mentioned is an outline of parapsychological research of today in America.

It may be understood from the above that the domain of parapsychological research is of very limited one as compared with that of psychical research. Speaking of the fields of the study on movement of matter or change, for example, psychical research has various fields as spirit photography, transference of matter, materializational phenomena, psychic treatment, and so on, while parapsychlogical research has only one in which it is investigated by throwing a die etc. if PK exerts an influence upon the movement of the die etc., generally speaking, a few kinds of test regarding PK which influences the

movement of matter are conducted. But such kind of test regarding PK is the first one by which parapsychology succeeded in treating PK quantitatively. The limitedness of the field of parapsychological research is unavoidable thing at present since parapsychology is aiming to proceed as a pure science.

The results of parapsychological research

Now I discuss the results of parapsychological research in America.

(1) Considering the case of precognition, first of all, in which a subject guesses rightly the future order of a pack of ESP cards before it is shuffled and cut, that is to say, a subject cognizes what is not yet in existence, it may be supposed that not an energy as light or sound wave ... through which man perceives matter sensorily... being limited by time and space but an energy being unlimited by time and space, namely a kind of mental energy must be working there.

(2) The experimental room in which ESP test is made consists of two rooms separated from each other by a heavy wall, and the subject in one room cannot see the ESP cards or the experimenter in another room nor perceive them. I've heard recently that someone in Russia could read a character in the darkness or with his eyes shut if he touched it. The skin generally has functions similar to that of nervous tissue, though it does not specialize into nerves. Therefore, it is not so strange if the skin itself should be able to sense or perceive matter or characters as the above. Such an ability of the skin of a finger, however, is a kind of sense so that it cannot perceive a matter without touching it. Such an ability is of no use therefore in ESP tests under which the subject can not touch nor see the object. It may be inferred from the above that ESP is an ability with which one cognizes a matter without using sensory organs.

(3) PK is an ability which works on an object directly without using senses or physical means so as to turn up the target face of a die

for example only through mental concentration.

(4) ESP or PK is unconscious working, for anyone scarcely feels that his ESP ability, PK ability or some super-sensory ability is working when he guesses the mark of ESP cards or gives an influence on the movement of a die.

In everyday life we have various conscious experiences or learning. We try to compare the usual conscious experiences or learning with the above mentioned unconscious working as ESP, PK and to make clear how both differ from each other. Suppose one bought a new electric instrument which he does not know how to use and he got an electric shock on one part when he touched there with hand. Then he comes not to touch that part again; one's behavior is affected by his former experience, in one sense, progresses by experience. Here is learning. Such experiences and learning as above are the conscious. When one learns how to type, for example, it is with consciousness and he will become more skillful in typing as he goes on with the practice. Such an advancement in skill is shown by learning curve (Fig. 6). When man, even an animal, learn something with consciousness, they will gradually become skillful in it by practice and gains a higher mark than before. So far as ESP or PK is concerned, however, one does not show an improvement in it even if he takes the test of ESP or PK everyday, ESP or PK is different from conscious experience or learning which enables man to improve in skill by practice and to gain a higher mark than before. The figure-7 is a distribution curve concerning the points gained by one person in the ESP tests which were carried out with him everyday for a month. The middle line shows five points, where one's ESP ability is judged to be zero, and the graduation on the line below shows the number from the first to the thirtieth day when the test was made. When a subject has

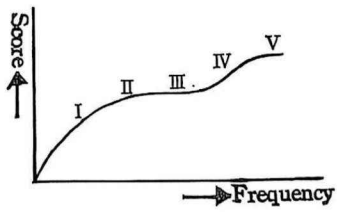


Fig. 6 quoted from "PSYCHOLOGY" p. 194 by Megumu Imada

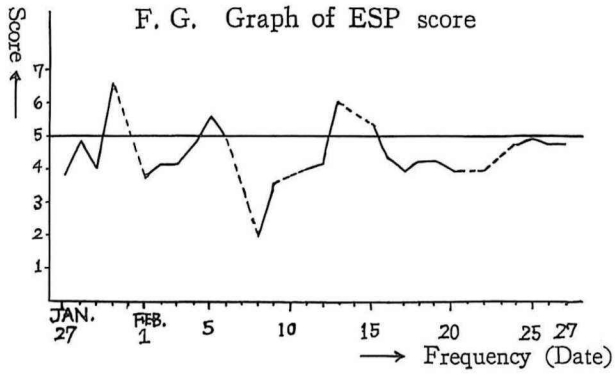


Fig. 7

an interest in the test in the beginning, he gains sometime a score higher than the middle line and sometime a score below the middle line. But as he loses interest in the test as time goes by, he generally gains a score of nearly five. This is a tendency which is seen in any case no matter who may take the test and how many times one may take it. It will be understood from this that an unconscious ability like ESP differs from conscious working as learning.

It is in the case in which a subject has much interest in the test and tries to gain a high score that he gains sometime a score above the middle line and sometime a score below the middle line. If a child is stimulated, for example, by being told that ten candies will be given to him if he gains 10 points and one hundred candies if he gains 25 points, he will gain high points. It is known, as understandable from the above too, that one's own volition to gain a high score and an interest in the test offers a condition in which ESP ability is apt to manifest itself.

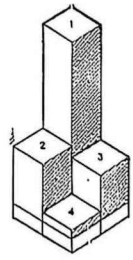


Fig. 8 J. B. Rhine, J. G. Pratt Parapsychology, p. 61

Now I explain that the unconscious ability PK is also different from conscious working as learning. The figure-8 is a distribution concerning the

points gained in PK test, which shows high points at the beginning but low points with the lapse of time. We divided the trials from the beginning to the end of the test into four, and made the distribution of the points; after all the points were high at the beginning and low at the end. It was attempted again and again with the same result. This is opposite to the distribution curve of the marks gained in learning, the conscious working.

From the above, it may be clear that unconscious psi ability ESP or PK is different in essence from conscious working as man's experience or learning.

(5) Parapsychological research in America was started originally with the purpose of scientifically proving the existence of spirit by all means, but it is difficult to prove the existence of spirit scientifically because a spirit cannot be caught scientifically and shown objectively as we show a wrist watch for example saying that this is a watch or here is a watch, and because the research becomes more complicated when the problem of precognition, clairvoyance, and so on is entangled in it. Speaking of precognition, for example, suppose that one medium was informed by one spirit that a war would be brough about or something dreadful would happen in such and such country several years later, and suppose that those came true after several years and the account appeared in a newspaper, it may be admissible without regarding necessarily the existence of a spirit if the medium says that he predicted the matter himself. Speaking of clairvoyance, suppose that a man named A for example died without telling anyone the place where he hid B and that his spirit told someone the place of B through one medium after his death and B was actually found when the man searched the place, the explanation may pass without regarding necessarily the existence of A's spirit that the medium himself saw through the place where B had been hidden. The same may be said regarding telepathy. These are the reasons why parapsychology has not yet proved the existence of a spirit scientifically clearly. But, since it became clear that psi (a

general term for ESP or PK) is different from conscious working and works without being limited by time and space, that is to say, mind exists and works without being limited by time and space, we can imagine that mind is immortal and continues to exist after a man died physically (death of the body would be natural because the body is of physical existence within the limit of time and space). Thus it came to be proved, though quite indirectly, through the results of scientific experiments on ESP and PK that soul is immortal or that mind continues to exist after man's physical death. So far as we take scientific standpoint, there is no other way than this as above mentioned to prove the immortality of a soul. For those who have psi ability, who get inspirations sometimes or who see through spiritual matters, what parapsychology of today says may seem to be quite tedious thing. However, fundamental things must be ascertained through an experiment again and again in order that parapsychology may advance as a pure science, so the advancement may be slow and circuitous at the beginning. But I believe the time will come on someday when we can make a great progress in this research.

Now I refer to parapsychological researches in Europe, but today I will only give a brief account of the works of Prof. Tenhaeff at the University of Utrecht in Holland.

Parapsychological Researches in Europe

The parapsychological researches in Holland and in some other countries are qualitative ones and look to be akin to the usual psychical research and yet have fairly scientific foundation, while the the parapsychological research in America is of quantitative one.

In the Vol. 3, 1965, of the scientific journal entitled "Recordings of Parapsychological Institute of the State University of Utrecht", which is published every year by Prof. Tenhaeff, a depthpsychological research concerning some experiences on ESP which rose spontaneously is explained; in short, one patient precognized or saw

through something in a dream or in his waking time and told a doctor or researcher as a third person about the contents of his precognition or clairvoyance, later the contents of his precognition etc. came true in reality and were ascertained by the patient himself and the third person through a newspaper which reported the news which accord with the contents of his precognition. Analyzing the contents of his precognition or clairvoyance depth-phychologically, it became clear that those have close relation to some contents or functions which had been formed in the depth of his mind or in his unconsciousness, that is to say, depth-psychological content or functions of human mind may form one of the backgrounds for the manifestation of ESP ability.

Seeing that Prof. Tenhaeff is trying to make research on ESP ability qualitatively rather than quantitatively and to analyze from a depth-psychological viewpoint someone's psi experience which rose spontaneously, his research may be the one akin to case studies rather than the experimental and the quantitative ones as Dr. Rhine is doing. Prof. Bender at the University of Freiburg in Germany, whom I'll introduce later in more detail on another occasion, is the one who is making a research in a way akin to Prof. Tenhaeff's.

Though there is a difference between Dr. Rhine's way of research and Prof. Tenhaeff's as to the point if it is quantitative or qualitative and if experimental or of case-study, both are in the same direction in respect that they have been pursuing their studies, attaching much importance to psychological elements in parapsychological phenomena. For example, Dr. Rhine caught parapsychological phenomena from its psychological aspect and made clear that when a subject had much interest in the test and a will to gain a high score, ESP or PK manifested itself well, that it was when a subject was too strained that psi-missing rose, and that both ESP and PK are unconscious ability. Prof. Tenhaeff also caught parapsychological ability from psychological aspect and found that there were depthpsychological contents or workings in the backgroung for the manifestation of par-

apsychological ability like ESP. Contrary to these, there are some groups in Russia, Japan, and also in America who are trying to make research on parapsychological phenomena, attaching an importance to its physiological aspect. As for myself, I'm making a research on parapsychological phenomena mainly from physiological aspect.

Research on Parapsychological Phenomena from Physiological Aspect

Dean's research

The figure-9 is the diagram of plethysmogram taken at Duke University in America. The experimenter was chief research worker named Dean at New Work University, the subject was a man named Purier who was a lecturer of psychology at Texas University, and I was an observer. The test procedure is as follows; the names of five persons which were picked up randomly from a telephone directory, the names of five persons whom the experimenter Dean knows, and the names of five persons whom the subject knows and by whom he was impressed recently are written in cards respectively, so fifteen cards are made. Five more cards in which nothing was written are added to these fifteen cards, so twenty cards make a pack. Firstly, the pack of the cards are cut at random. The experimental room consists of two rooms, in one of which the experimenter and the observer take their place and a plethysmograph is placed and in another the subject lies. While taking the plethysmogram of the

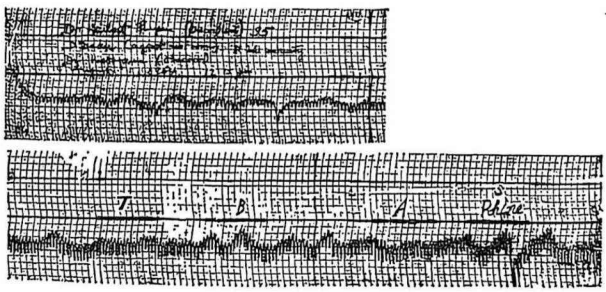


Fig. 9

subject, the experimenter sometimes takes up a card, and concentrating his mind on the name, sends his thought extra-sensorily to the subject in the next room. The reason why plethysmogram is taken for finding psi ability is because the functions of the heart can be easily known through pulse wave which shows the change in quantity of blood flowing the vessel caused by the workings of the heart or blood vessels, and because it is experientially known that emotional movement or psychic working is easy to exert an influence on the functions of the heart or blood vessels. By the way, the subject's plethysmogram does not show so great a change when the experimenter sends his thought to him, watching the name which he knows or watching the name which was picked up from a telephone directory and concentrating his mind on the name, and when he does not send his thought to the subject, watching the card on which nothing is written. However, the subject shows a great change in his plethysmogram, compared with the above mentioned cases, when the experimenter sends his thought to the subject, watching the name which the subject knows himself and concentrating his mind on the name. That is to say, the basic line of the subject's plethysmogram fluctuates remarkably. It is decided exactly according as how many centimeters the basic line fluctuated, viewed from a fixed standard, if it is a change or not. It is examined how many times change appeared, concerning each of the four cases where the names which the experimenter knows are used, where the names which the subject knows are used, where the names picked up from a telephone directory are used, and where the cards in which nothing is written are used. Then it is statistically examined if there is a significant difference in frequency of the changes between the case where the cards on which nothing is written are used and each of other three cases. In case a significant difference is found, it is regarded that psi worked between the experimenter and the subject. The result told us that psi worked the most in the case the names which the subject knows were used.

The parapsychological research in Russia

In Russia, parapsychological research seems to have been started with Dr. Vaciliev (ВАСИЛЬЕВ) as a central figure, who was a professor of physiology at the University of Leningrad but who died a few years ago. The purpose of parapsychological research in Russia is quite different from that in America; in America it was started with the purpose of proving the immortality of soul after man's physical death, but in Russia it was begun in an attempt to deny superstition or religion. Russian people seem to have been thinking at the beginning that paranormal phenomena such as telepathy and psychokinesis could be explained as a kind of hypnotic phenomena or by something like the theory of "a living body as a radio" and that religion or spiritual existence then would be denied.

By the way, the theory of "a living body as a radio" holds that it may be possible to read a person's mind by catching through a sense organ or a nervous organ which is still unknwon to us or catching directly with the brain electromagnetic waves of very high or low frequency, though physiologically viewed it may be so slight ones and not so strong as to be able to give a stimulus to nerves of another person, which appear when a man gets emotionally excited so that nerve cell of the diencephalon or limbic system get excited too. Russian people thought that telepathic phenomena can be explained by this theory of "a living body as a radio".

There is the Leitra phenomena as another theory by which they tried to explain psychokinesis or telepathy; a physiologist named Leitra in Palestine one day looked at an internal secretive organ of an insect through a microscope and found it jerking. He observed it carefully to see why it jerks and found after all that the muscles of his own hands and feet or the muscles of his respiratory organs were strained and excited when he saw into the microscope in a strain, so that the internal secretive organ of the insect was jerking. By that time they had already known that a kind of electro-magnetic wave appeared when the muscles got strained. They put an

interpretation on it that a kind of electro-magnetic waves was caused to appear by an excitement produced in the muscles of hands or feet or the muscles of the respiratory organs of the person who was seeing into a microscope in a strain and it was transmitted to the internal secretive organ of the insect, stimulated it and caused it to jerk. Then, they made an experiment on telepathy, using two leaden rooms, in one of which an experimenter took his place and in another a subject was placed, on supposition that, if telepathy rises really as explained by the theory of "a living body as a radio" or the Leitra phenomena as above mentioned, telepathy would not rise in a room separated by a leaden wall through which electro-magnetic waves cannot pass. Going against their expectation, however, telepathy rose. Thus they found it a mistake to interpret telepathy upon the theory of "a living body as a radio" or the Leitra Phenomena theory. Finally, they could not escape the conclusion that the mind of man which is able to cause psychic phenomena like telepathy, for instance, was not of physical dimension as electro-magnetic wave but must be something which is not limited by time and space, though in Russia they began the research of parapsychological phenomena with the purpose of denying religion or the existence of spiritual being. Now I refer to my own work briefly.

The parapsychological research at our institute

The experimental room consists of three rooms as the Figure-10

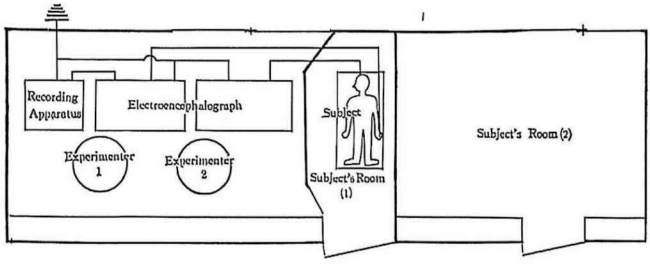


Fig. 10 The floors, doors, ceilings, walls and windows of the rooms are shielded from physical and electric energy.

shows, and in one of the rooms an electroencephalograph, a plethysmograph, a cardiograph, GSR-graph and a pneumatograph are placed, and the experimenter-1 and the experimenter-2 take their place there. In the middle room a subject lies on a bed, being attached the electrodes of plethysmograph, pneumatograph, and GSR-graph. A copper net is set in all of the floors, ceilings, walls, windows, and doors of the rooms and it is connected with a copper plate buried deep under the ground so that any physical energy may not pass through the floors, walls, etc. The test procedure is as follows; first of all, plethysmogram, respiration and GSR of a subject who is in supine posture without doing anything are taken throughout the first, the second, the third, and the fourth minute.... (Control). At an interval of one minute, the measurement is continued again in the above condition for the next one minute, then the experimenter gives an instruction to the subject to make mental concentration upon his forehead, the subject's mental concentration is continued for the next three minutes, during which the measurement is continued of course to see what a change is caused in his plethysmogram, respiration, GSR, and so forth.... (Subject's mental concentration upon himself). At an interval of one minute, the measurement is continued again for the first one minute of the next test with a quiet state of the subject, and then the experimenter-2 (the writer) sends his mental power to the subject through his mental concentration upon the subject for three minutes, during which the physiological measurement is still continued to see if a change is effected in plethysmogram and so on of the subject.... (Experimenter's mental concentration on the subject). The measured values of plethysmogram, respiration, and GSR for each of these three tests, namely, the test of "control", the test of "subject's mental concentration upon himself", and the test of "experimenter's mental concentration upon the subject" are put into the table of analysis of variance, the table of analysis of covariance, or the table of X^2-examination, and it was examined if the subject's plethysmogram and so on showed a change or not under the test

of control in which the subject kept quiet without doing anything, if a change was shown or not when the subject made mental concentration upon himself compared with the test of control, if a change was shown or not when the experimenter made mental concentration upon the subject compared with the test of control, and further more it was examined if plethysmogram, respiration and so forth differ from each other among the three states of "control", "subject's mental concentration upon himself" and "experimenter's mental concentration upon subject", that is to say, if these three states differ from each other in physiological working of the body such as respiration, pulsation and so forth (refer to "The Influence of Mental Power on the Body", Vol. 10 of the Journal of Religious Psychology, as for detailed explanation of the method of measurement and examination of the above). Then, the following became clear; regarding respiration under the "control" test the value of F was found out after statistically examined as $F=0.002<F.\ 01=7.31$, which means that change was not effected in respiration under the "control" test with the lapse of time from one minute to four minutes. But it was found that subject's respiration showed a very significant change on statistical view when the experimenter (the writer) sent his mental power to the subject through mental concentration upon the subject, that is to say, subject's respiration became slow and long when the experimenter sent his mental power to the subject.

Regarding the problem if there is a difference in plethysmogram, respiration, and GSR between the "control" state and the state of "subject's mental concentration upon himself", a significant difference was found in plethysmogram and respiration, by which it was proved that it gives an influence on the working of the circulating system including the heart or respiration of the subject himself if he makes mental concentration upon himself.

As to the question if those three states of control, experimenter's mental concentration upon a subject, and subject's mental concentration upon himself differ from each other in each of plethysmogram,

respiration, and GSR, it was found that those differ from each other in respiration and GSR. To be interesting, so far as those of Yogi group who have experience of religious discipline like mental concentration are concerned, there was a significant difference of a high level as of 2.5—0.5% certainly in respiration for all of the second, third, and fourth minute, while those of student group who had never made mental concentration showed no difference in it, except GSR in which they showed a difference of high level as of 1—0.5% for the second and third minute. It is clear from this that there is a difference in the kind and the degree of changes to be effected in their body when they make mental concentration upon themselves or when an experimenter makes mental concentration upon them between those who have experience of practicing religious discipline like mental concentration and those who have not such an experience.

It also became clear after further experiment of several series and analysis of the data that both of the Yogi group and the student group show a greater change in plethysmogram and respiration more easily when they make mental concentration upon themselves rather than when an experimenter makes mental concentration upon them and that the Yogi group show a greater change in respiration and so on than the student group do when an experimenter makes mental concentration upon them. The Figure-11 is the diagram of respiration of one subject, a member of the Yogi group, which shows that a change was caused when the experimenter made mental concentration on him. The above diagram is plethysmogram and the below ones are respiration and GSR. The respiration for the first one minute of the control test was 16.5 and it increased by 2.5 and became 19 for the fourth minute, but the respiration under the test in which the experimenter made mental concentration on the subject was 19 for the first one minute and it decreased to 14.6 for the fourth minute as the Figure-12 shows. As above shown, we found often a significant change in respiration. The experiment was repeated again and again with the same result. From the above mentioned, it may

Fig. 11

Fig. 12

be concluded that the body of a subject, especially his respiration, suffers a change when an experimenter sends his mental power to the subject through mental concentration, that is to say, the PK or mental power of one person is able to cause a change in the body of another person.

Now I explain what a change was brought about in the body of a subject by Tony's (a faith healer) paranormal ability, showing some of the data which were obtained from the experiment carried out with him at our institute when he came to Japan a few years ago and stayed in Tokyo for about ten days. In this experiment, Tony acted as a subject to send his PK to another Japanese subject. At that time the room had not yet been partitioned into three as the Figure-10 shows. But the "room 2" was perfectly partitioned into two by a wooden screen and a curtain of thick cloth, and the two subjects were respectively placed in each of the two partitioned rooms between which it was so devised that any communication by sensory and physical means might be impossible: In case either of them moves, utters a voice, or makes a sound, it is noticed by an experimenter through an interphone connecting with the masterphone placed in the experimenter's room and also through the changes which appeared concurrently with it in their respiration, GSR and so on. The subjects were being watched always by an experimenter in the next room, lest they should make a communication with each other by sensory and physical means. If changes were caused in respiration or GSR because they moved or uttered a voice, those were checked and were excluded from the data. Both of the subjects were not informed what kind of experiment was going to be made, excepting that Tony was instructed to send his mental power to another subject in the next partitioned room when an electrical first sign was given to him and to stop it when the second sign was given. Under such condition in which they were keeping quiet, their electroencephalogram, plethysmogram, respiration and GSR were taken simultaneously for three minutes. . . . Control. The measurement was continued under the

same codition in which they were keeping quiet for the next one minute, then the experimenter gave an electrical sign to Tony to send his divine power alleged to be the power which he uses in performing psychic operation to the Japanese subject for one minute. When the one minute has passed, the experimenter gave a sign again to Tony to stop sending his power and for the next one minute measurement was taken under their quiet state again.... Experiment. The data thus obtained on electroencephalogram, plethysmogram and so forth were analyzed, and it was examined concerning both the "control" test and the "experiment" test in which Tony sent his mental power to the Japanese subject if there was a change between the first minute and the second minute of the test, how many times change occured, and it was statistically examined if there was a significant difference in frequency of the changes between the "control" test and the "experiment" test, and after all, it was found that

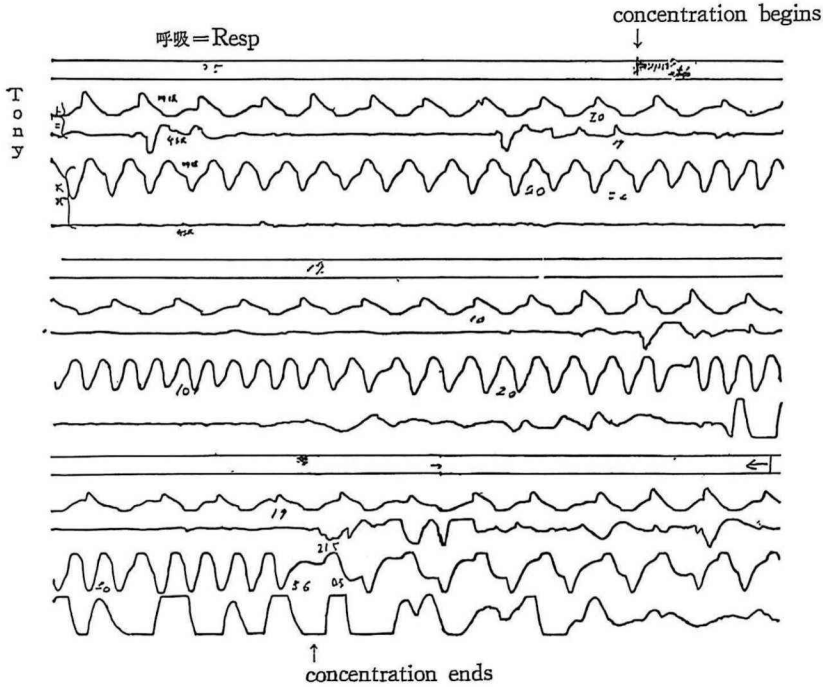


Fig. 13

there was a significant difference. From this it may be inferred that it causes a change in the body and the mind of another person without using sensory or physical means if Tony sends his mental power to another person. Now I explain what a change was brought about in respiration and GSR of the subject when Tony sent his mental power to the subject, on the basis of the diagram of the Figure-13. The above two are the diagrams of Tony's respiration and GSR and the below are those of another subject. Taking GSR is to see the state and the working of the sympathetic nerve which is one of autonomic nerves. When the sympathetic nerve gets excited and strained, it causes the heart to palpitate. As the diagram shows, the respiration of the Japanese subject becomes very fast suddenly from the moment when a sign was given to Tony to make mental concentration upon the subject and when Tony began to send his mental power to the subject through mental concentration, before which their respiration and GSR were taken in their quiet state and the subject's respiration was slow. In contrast with this, the respiration of a Yogi subject became slow in the case I sent my mental power to him. Seeing the diagram further, we find that the respiration of the Japanese subject is getting confused gradually, that is to say, sometimes it becomes slow and sometimes fast, and that gradually the GSR shows a great change, which means that the sympathetic nerve is getting strained. From the moment when Tony stopped sending his mental power to the subject, the subject's respiration suddenly becomes slow and the excitement of the sympathetic nerve decreases as time passes on.

From the above it may be said that it causes various changes in the mind and the body of another person, if someone, especially a man of psi ability, makes mental concentration upon another person even if without using sensory or physical means, and that there is a difference in the kind of the changes, according to the character of a person who sends his mental power, the way by which mental power is sent, and also to the type of a person to whom mental power

is sent. For instance, in the case I sent my mental power to another person, his respiration became slow, while in the case Tony sent his mental power to another, the person's respiration became very fast. This may be due to the difference of character of a person ; Tony is active, while I am quiet. In any case, we may say that it causes various changes in the mind and the body of another person if someone, especially a man of psi ability, makes mental concentration upon another person, without using sensory and physical means and that the character of a person has concern with the manifestation of psi ability.

The above is the brief explanation of my research and the result. Now I state briefly what was discovered through those results and what advantages my research has.

The results of my research and the advantages of it

Now it is clear, as we have seen, that various changes are caused in the mind and the body of a person when another person, a person of psi ability for instance, sends his mental power or PK to him without using sensory and physical means. In the experiment in which I acted as a sender of mental power, for example, the room in which I took place and the room in which a subject to whom my mental power was sent, lay, were devised so that any physical energy might not pass through each other. In spite of this, my mental power could cause a change in the mind and the body of the person to whom the power was sent. Therefore, such a mental power or PK as to be able to cause a change in the body of another person may be considered to be the nonphysical which is not based on sensory and physical means. This accords with the result which Dr. Rhine obtained through the tests of ESP and PK that ESP and PK are not the physical but the non-physical, which is not limited by time and space.

Now I refer briefly to the points which seem to be advantages of my research. Speaking of the PK test on dice by Dr. Rhine, for

example, what can be known so far is only the fact that the target face of a die appeared, that is to say, a face appeared as one wished. That the target face appears seems to be because PK, perhaps a non-physical energy, works on the physical movement of a die and because an interaction or transformative working between physical energy and non-physical energy occur either inside or outside of the die. But in reality nothing is known definitely at present as to this question. So far as my experiment as above mentioned is concerned, on the other hand, besides the fact that a change is caused in the mind and the body of a subject when another person sends his mental power to the subject, the following were made clear; what kind of changes occured, in what organ change was caused, and how those were different according to the personality of a man to receive the mental power and that of a man to send his mental power and also to the degree of their psi ability. At present, we are further studying in what condition of the sender and the receiver psychologically and physiologically, change is most easily caused in the receiver. If we go ahead with this work, the interaction or transformative working between physical energy and non-physical energy, and the place or the conditions in which the interaction or the transformative working is caused will gradually become clear.

Now I mention another point of the advantages of my research The problem of psychosomatics is being taken seriously in modern medical science. As already mentioned, various changes are caused in one's body when he makes mental concentration upon himself, which modern medical science interprets as follows; the center of the autonomic nervous system and the center of emotion adjoin each other in the limbic system of the brain or interbrain, so the strain or excitement caused in the center of emotion by mental concentration spreads to the center of the autonomic nervous system, and the excitement in the center of the autonomic nervous system causes various changes in each organ or tissue of the body. In this interpretation, the problem of correlation between mind and body is

considered in physical and physiological dimension. However, seeing the result of my experiment that it caused a change in the body of a person when another person sent his mental power to the person, though they were respectively in a room shielded from physical energy so that any communication by sensory and physical means was impossible between them and that it may be considered therefore that there is a kind of correlation between mind and body based not on physical energy but on non-physical mental power, because what causes a change in a person's body is another person's mental power which is non-physical as already mentioned, we can imagine that in some cases the problem of correlation between mind and body cannot be thoroughly understood merely by the mechanism of physiological and physical dimension, that is to say, it is impossible sometimes to understand the problem of psychosomatics without giving consideration to non-physical "mind" or to mental power. Hereafter I like to study further the correlation between such non-physical mental power and physical working (change) of physical and physiological dimension.

Now I refer to the question what characteristics men of psi ability have, and how they are different from ordinary men and from the insane, from the physiological and parapsychological viewpoints.

111. The Characteristics of a Man of Psi Ability

The Chakras in Yoga and the figure of meditation in Taoism

First of all, I have to touch upon the Chakras in Yoga and the figure of meditation in Taoism, as it is known experientially that psi ability is developed when Chakra has been awakened. When one makes meditation in Yoga, he concentrates his consciousness upon a certain Chakra, and as his practice goes ahead in several months or years he will get to see a circle of light extra-sensorily. It is because a Chakra has been awakened that he sees such a light. Chakra means "a circle of light". When one gets to see such a light, his psi ability is developed. The Figure-14 is an illustration of the Chakras. Mentioning the seven Chakras by name from the bottom, those are Kundalini, Swadhisthana, Manipula, Anahata, Vishdha, Ajna and Sahasrara. Many records based on experiences are kept as to the question what kind of psi ability is developed, how mental functions change, and what organ especially gets active, according as which Chakra has been awakened. Seeing that some change or improvement is brought about in a certain mental function or physical working when one Chakra has been awakened, it seems that Chakra is something like the point where conversion of physical energy to mental energy is made, or it is a physical mental level which the modern psychosomatics is trying hard to find out, a level where mind and body cannot be separated from each other.

Yoga fully explains on the basis of experiences the process through

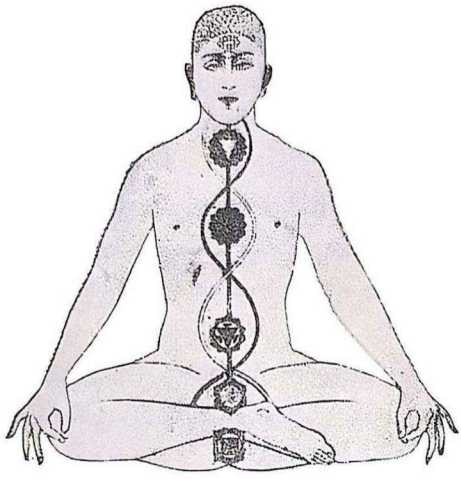


Fig. 14 The Centres or Lotuses
Arthur Avaron "THE SERPENT POWER", Ganesh & Co., (Madras) Ltd.

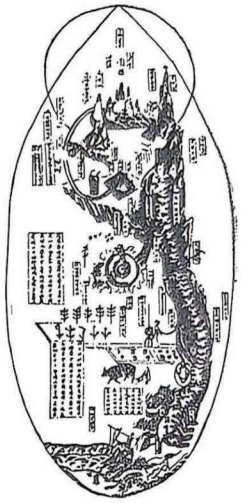


Fig. 15 Erwin Rousselle "SEELISCHE FÜHRUNG IM LEBENDEN TAOISMUS", ERANOS JAHRBUCH 1933, p. 159

which Chakra is gradually awakened (by mental concentration upon it) and the meaning of it. The Figure-15 is an illustration of meditation in Taoism which tells the same thing as Yoga explains. Explaining briefly the corresponding relation of it with Chakra in Yoga, the lowest part where water in an abyss is drawn up is correspondent to Kundalini, and drawing up water from the abyss means the importance of raising water (semen) upward to the head through the spinal cord in one's meditation. Yoga also urges the importance of raising the power of Kundalini to Sahasrara in the vertex through the spinal cord. The part to which water is drawn up and where water and fire are joined together corresponds to Swadhisthana. The part where a cow is tilling the field with a spade, which means training Tanden namely the abdomen under the navel, corresponds to Manipula Chakra. Yoga also regards it as very important to make mental concentration upon Manipula Chakra and to train it. The part of the heart corresponds to Anahata Chakra.

The five-storied pagoda at the throat corresponds to Vishda Chakra, which seems to correspond to a needle's eye about which it is said in the Bible that it is more difficult for the rich to go to heaven than for a camel to pass through a needle's eye. It is said that this is the region where all beings become nothing and that it is impossible to ascend to higher Chakras, or to attain to higher spiritual enlightenment, without passing through the gate of this five-storied pagoda, that is to say, this is a gate which can not be passed through without denying one's egoistic mind and the body as well as one's worldly property, in other word, it is impossible to raise up the power of Kundalini, the water in abyss, through this gate without denying every worldly existence. The part in the middle of the forehead is called Byakugo and corresponds to Ajna Chakra. The mountain in a vertex corresponds to Shahsrara Chakra. It is said that the highest spiritual enlightenment will be attained when the water in an abyss at the lowest part, the power of Kundalini, rises to Sahasrara and joines with the "Ki" (Prana) of the heaven.

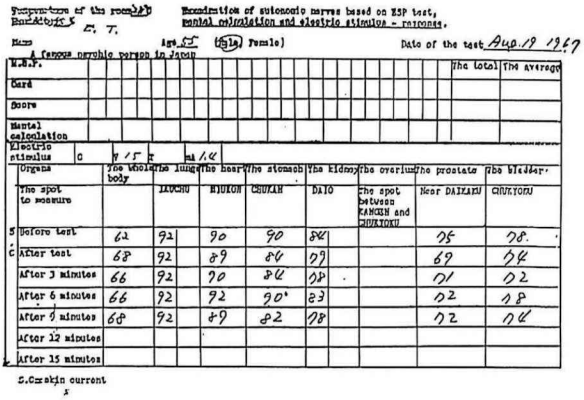
Chinese medicine of acupuncture and moxibustion also maintains that the inborn "Ki" in man is the prana ("Ki") which is inherent in man by nature and is seen only extra-sensorily and that the man may be said to have reached the level of a saint if he gets able to see spiritually the "Ki" flowing in fourteen Keirakus. That is to say, one gets able to see the inborn "Ki" rise up passing through an invisible route in the spinal cord when Chakra has been awakened in him through mental concentration or meditation.

Close Relation among Chakra, Psi Ability and Internal Organs (autonomic nerves)

It was already mentioned that super-sensory ability, namely psi ability, is developed when Chakra has been awakened through mental concentration. Yoga maintains by experience that Chakra has a close relation to some specific internal organ and the autonomic nerves

controlling them. From this it may be inferred that there is a close relation among Chakra, psi ability, and internal organs (autonomic nerves). I made an experiment as follows with those in whom Chakra has been awakened so that their psi ability was developed, in order to make clear how the states of their internal organs and autonomic nerves corresponding to the awakened Chakra differ from those of ordinary men; first of all, a direct current voltage of about 5 volts was applied to a viscero-cutaneous reflect point of each internal organ which is said to have a close relation with a fixed Chakra, and the value of the direct current was measured at each viscero-cutaneous reflect point. Next, a direct current voltage of 20 to 30 volts intermittently was applied to two points on the upper part of the right wrist in order to stimulate the subject. In this case the direct current value for stimulation is about 1mm volt to 2mm volts. The reaction of the autonomic nerves controlling each organ toward stimulus is reflected on each viscero-cutaneous reflect point, and such reflection causes the current value on each reflect point to change. The change value of the current was found out by comparing the current value at each reflect point measured immediately after electric stimulus which was given to the right hand with that before giving a stimulus. Through examining how the change value differs according as he is an ordinary man or a man of psi ability, I tried to make clear the characteristics of the working of internal organs and autonomic nerves corresponding to respective Chakra, concerning a man of psi ability in whom Chakra is awakened.

As the result of this experiment, it was found out that there was a great difference between an ordinary man and a man of psi ability; man of psi ability showed a decrease in the current value at the viscero-cutaneous reflect point of each organ as the kidney, genital and urinary organs which have a close relation to Swadhisthana Chakra, stomach corresponding to Manipula Chakra, heart corresponding to Anahata Chakra, lungs corresponding to Vishdha Chakra after stimulus was given (Fig. 16), while ordinary man showed an increase in it

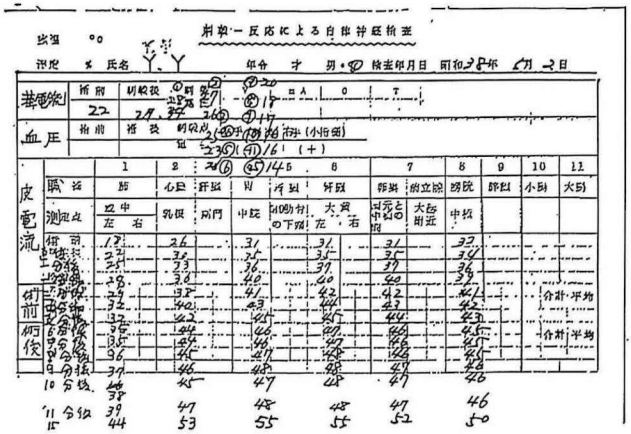


Temperature of the room
Examination of autonomic nerves based on ESP test, mental calculation and electric stimulus - response.
Name
Age
Male) Female)
Date of the test
A famous psychic person in Japan
M.S.T.
Card
Score
Mental calculation
Electric stimulus
The total
The average

Organs	The whole body	The lung	The heart	The stomach	The kidney	The ovarium	The prostate	The bladder
The spot to measure		HAICHU	HIJUKU	CHUKAN	DAIO	The spot between KANGEN and SHINTOKU	Near DAIKEI	SHINTOKU
S Before test	62	92	90	90	84		95	98
C After test	68	92	89	86	97		89	94
After 3 minutes	66	92	90	86	98		91	92
After 6 minutes	66	92	92	90	93		92	98
After 9 minutes	68	92	89	82	98		92	96
After 12 minutes								
After 15 minutes								

S.Cu skin current

Fig. 16



前期一反応による自律神経検査

	1	2	3	4	5	6	7	8	9	10	11
皮電流	眼球	肺	心臓	肝臓	胃	膵臓	肝臓	膀胱	副腎	膀胱	小腸	大腸
	測定点	立中 左 右	乳根	肩門	中脘	臍の下3寸 左 右	臍と中脘の中点	大包 脇直	中極			
前	1分後	17	26		31	31	31	37				
	2分後	22	31		35	35	35	39				
	3分後	25	33		36	37	37	39				
	4分後	28	38		40	40	40	39				
後	5分後	29	38		41	42	42	42				合計 平均
	6分後	32	40		43	44	43	42				
	7分後	32	42		44	44	44	43				
	8分後	35	44		46	47	46	45				合計 平均
	9分後	35	45		46	47	46	45				
	10分後	36	46		47	47	47	46				
	11分後	37	45		47	48	47	46				
	15分後	39 44	47 53		48 55	48 55	47 52	46 50				

Fig. 17

(refer to Fig. 17). Increase of the current value means predominant excitement and strain of sympathetic nerves, and decrease of the current value means predominant reaction of parasympathetic nerves to the stimulus. In short, it may be said that parasympathetic nerves among the autonomic nerves controlling the internal organs corresponding to respective Chakras predominantly reacts to the stimulus so far as men of psi ability are concerned, while in ordinary men sympathetic nerves reacts predominantly. Therefore, it may be said that there is a great difference between ordinary men and men of psi ability, that is to say, the reaction of autonomic nerves of men of psi

ability toward the stimulus is of a type opposite to that of ordinary men, because the sympathetic nervous system and the parasympathetic nervous system work each other antagonistically within autonomic nerves. In case the sympathetic nervous system reacts to a stimulus predominantly, the body is arranged so that it may react to an external world quickly while the emotion is highly strung. On the contrary, in case of the predominant reaction of the parasympathetic nervous system to a stimulus, the reaction to an external world is mild and the emotion is composed. Dr. Hasegawa, a medical doctor who wrote a book entitled "Medical Zen" also maintains that parasympathetic nerves of those who had practice of Zen meditation for long years are predominant, which may be true also of Yogis who have awakened Chakra through mental concentration.

Tony Agpaoa, a faith healer, showed decrease too in the current value at the viscero-cutaneous reflect point after being given a stimulus, disregarding that it was in winter in which sympathetic nerves were apt to be strained.

The Difference among a Man of Psi Ability, an Ordinary Man, and an Insane, Viewed from Electroencephalogram, Respiration and Plethysmogram

The basic line of plethysmogram of a man of psi ability differs from that of an ordinay man. The Figure-18 is the plethysmogram of one student which was taken last year. It shows that the working of his autonomic nerves is always constant, not instable nor hypersensitive because the basic line is nearly straight. The Figure-19, the diagram of plethysmogram of a man of psi ability, shows, as the basic line fluctuates in the form of waves, that the autonomic nerves controlling blood vessels cause the vessels to contract and expand always in a fixed rhythm, and increase or decrease rhythmically the quantity of blood which gathers in the part where the artery and the

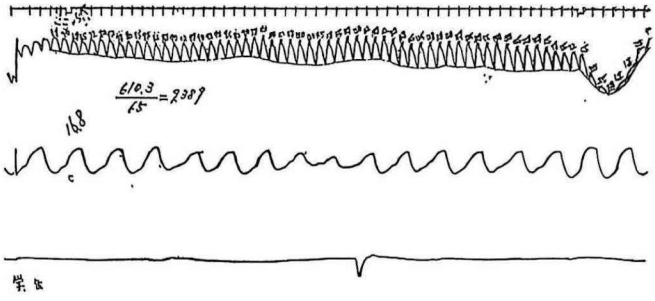


Fig. 18

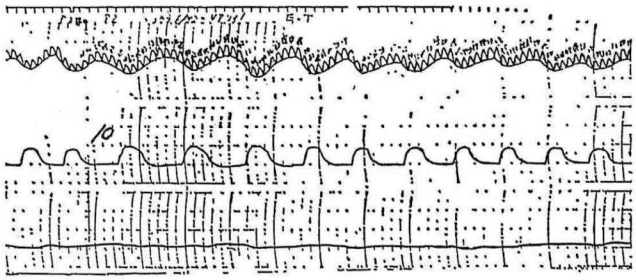


Fig. 19

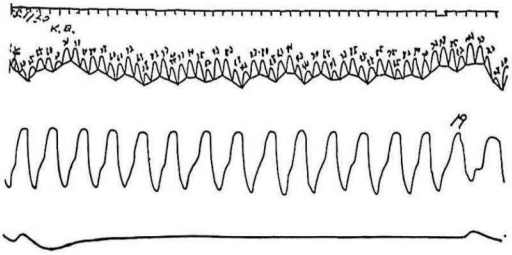


Fig. 20

vein anatomose together. It may be said therefore that, so far as men of psi ability are concerned, autonomic nerves controlling blood vessels are working sensitively and rhythmically. The Figure-20 is the diagram of plethysmogram of a slight schizophrenic, who seems to have been a scholar of undoubted ability formerly. At first sight, it looks to be not so different from the plethysmogram of a man of psi ability, and it is impossible to distinguish between them through their plethysmogram only. Regarding respiration, however, the Figure -20 shows very quick respiration (19 times for one minute), while

the Figure19 shows very slow one (10 times for one minute). The Figure-18, the diagram of an ordinary man shows the middle (16.8 times for one minute). That is to say, the respiration of a man of psi ability is very slow compared with that of an insane, though both show a specified pattern of similar type in the basic line of plethysmogram, different from an ordinary man. It may be because, in case of a man of psi ability, the parasympathetic system is predominant. From the above mentioned, it will be clear that a man of psi ability, an ordinary man, and an insane respectively shows a pattern different from each other in the working of respiration and circulatory system.

Now I refer to the difference among them shown in electroencephalogram. The Figure-21 and the Figure-22 are the diagrams of electroencephalogram of two persons who are not psychic by nature and are mentally disordered. Seeing the Figure-21, which is of the

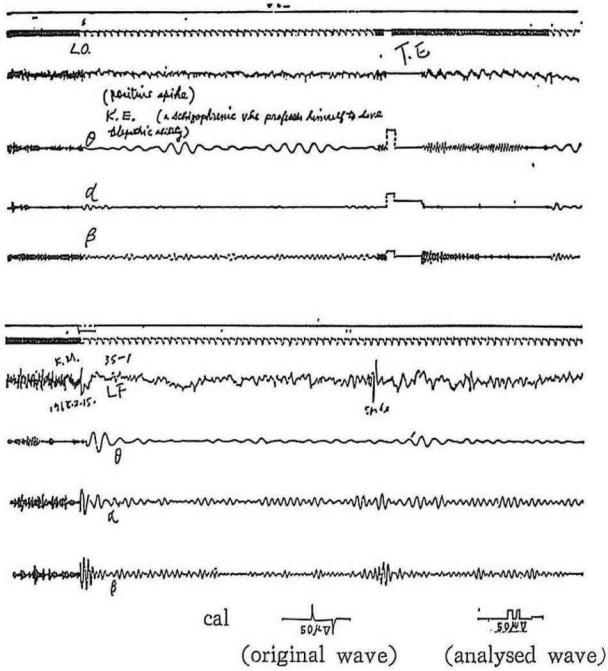


Fig. 21, (the upper), 22 (the lower)

same one whose plethysmogram, respiration and GSR were shown in the Figure-20 and who claims to have psi ability, positive spike wave appear in the occipital region, which proves that there are some parts where nervous cell is abnormally excited in the occipital region. Such positive spike waves (as appeared in his occipital region) are abnormal and does not appear in normal electroencephalogram. In addition to this, quick β waves appear many times, while α wave which frequently appears generally at the occipital region in normal electroencephalogram seldom appears though he keeps closing the eye, which too tells us an abnormality. Seeing the Figure-22, which is of the one who is not so seriously mentally deranged as the former one and who is of slightly manic-depressive psychosis, a large spike wave sometimes appears at the sinciput, which proves that there is some excited part in the sinciput. Such abnormal waves which are seen in the electroencephalogram of the above two persons mentally deranged are not seen in the electroencephalogram of a man of psi ability or in that of an ordinary man (Refer to Fig. 23, 24, 25). It seems that there is a difference too within a normal range in electroencephalogram between a man of psi ability and an ordinary man, but it is not yet clear what the difference is. We find out, however, in the Figure-25 which is of the man of psi ability that α wave appears many times. It may be considered through my investigation of electroencephalograms of many psychic persons as the characteristics by which a man of psi ability is different from an ordinary man that the basic line of electroencephalogram goes down, that is to say, the fundamental voltage of the brain gets down, electroencephalogram looks to change remarkably according to mental working. Now, a clear distinction can be made between an insane and a man of real psi ability through electroencephalogram; the former's electroencephalogram shows abnormal brain waves and the latter shows normal waves.

Perhaps you could understand clearly through the above mentioned results of the examination on the viscero-cutaneous reflect point and the examination of plethysmogram, respiration and electroencephalo-

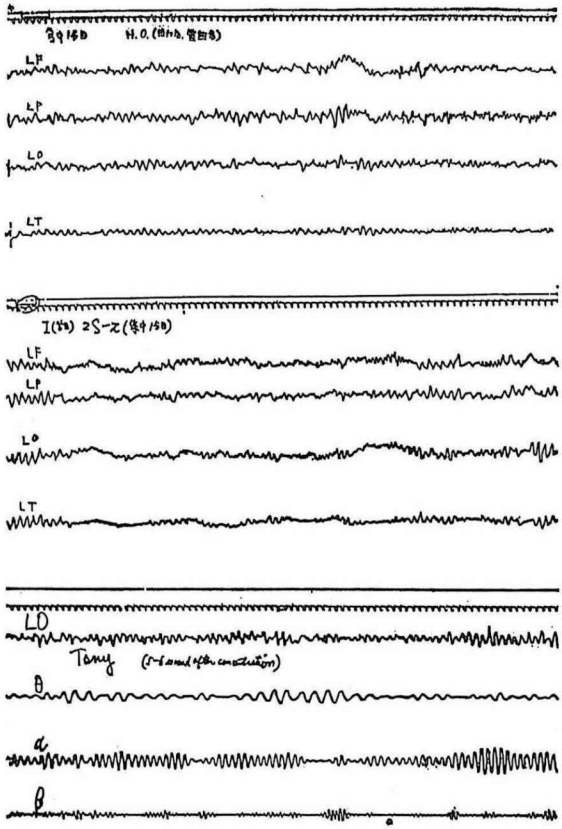


Fig. 23, 24, 25 from the upper to the lower

gram that there is a difference in physiological working and so forth of the body among a man of psi ability, an ordinary man and an insane.

On the basis of such difference in physiological working and so forth among the three, we can clearly distinguish the three from each other.

The reason why I'm making such a research as above mentioned is that I think it is very important to save those who are mentally deranged temporarily by some religious and spiritual causes but who are in nature not insane from being diagnosed erroneously as a genuine case of psychopath and being sent to a mental hospital. I

still wish heartily to distinguish the persons who are mentally deranged temporarily at the beginning of their having awakened a religious psychic ability from the real psychopath and to save the psychic persons.

The result of ESP Test made on a man of psi ability and an insane

Tony Agpaoa, a faith healer of the Philippines, gained points as 8, 7, 10, 9 and the average was 8.2. The probability of the fact that such an average score is obtained by chance is at one time in five thousand times. It may be said from the result of his ESP test, therefore, that he has an ability of extra-sensory perception with which what can not rise accidentally more than once in five thousand times can be caused to rise ordinarily. Regarding the ESP test made on the insane, the man of slightly schizophrenia formerly mentioned who claims to have an ability of telepathy or clairvoyance himself, he gained 5.5 as average for ten runs of test, CR was 0.8. According to the calculated probability, the score is obtained quite by chance. Therefore, he may hardly be said to have an ability of extra-sensory perception. Thus, the result of ESP test fixes one standard by which to distinguish a man of psi ability from an insane.

Conclusion

In this article I explained the historical background of psychical research at the beginning, and the reason why parapsychology appeared in order that psychical research may be established as a science, how parapsychology has been developing in the world, what kind of fields parapsychology has, and in what methods the research is being conducted. And at the end I explained the research being made at our institute, showing some slides and so forth. In any case, psychical research or parapsychological research is at present in the stage in

which it is proving scientifically, though little by little, the existence of the non-physical, namely the existence of a psychic or spiritual world, which can not be solved from the standpoint of materialistic science. We will carry on a research further, considering paranormal religious phenomena mainly from the standpoint of psi physiology, to make clear the questions what physiological and psychological characteristics a man of psi ability has, compared with an ordinary man and an insane, how psi ability can be developed and how the mind can be evolved.

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